REMARKS/ARGUMENTS

The Examiner rejected claims 1-23 as anticipated by (35 U.S.C. §102) Nahum (U.S. Patent Publication No. 2003/0236945). Applicants traverse.

Claim 1 recites a SAN comprising: one or more regions forming at least a portion of the SAN, each region having one or more components, the components including one or more digital data processors and one or more storage devices; one or more scanners that collect, for each region, information regarding the components and their interconnectivity; a manager, coupled to the one or more scanners, that responds to the collected information to determine a topology of a portion of the SAN spanned by the regions.

The Examiner cited block 69 [the Examiner must mean E9] of FIG. 13 as teaching the claim requirement of one or more scanners that collect, for each region, information regarding the components and their interconnectivity. (Office Action, pg. 2) Applicants traverse.

Nahum discusses how the SVM 3 updates translation tables to the latest configuration of the hosts and storage devices coupled to the SAN. (Nahum, p. 10, par. 0123) The SVM3 runs a device polling mechanism for a continuous status update and availability of hosts and devices operating on the SAN to detect changes in the SAN configuration. The detected changes are entered into configuration tables maintained by the SVM 3. (Nahum, pgs. 5-6, paras. 0069-0070).

The cited block E9 in FIG. 13 discusses how if a new host is detected, the new host is listed in the list of hosts and the polling mechanism continues. (Nahum, pg. 10, para. 0125).

Applicants submit that nowhere does the cited Nahum anywhere disclose the claim requirement that one or more scanners collect, for each region, information regarding the components and their interconnectivity, where each region comprises a portion of a SAN. Nowhere does the cited Nahum anywhere disclose that one or more scanners are maintained to collect information on components for different regions. Instead, the cited Nahum discusses polling devices and hosts to update SAN configuration information, but nowhere discloses scanners for different regions of the SAN that collect information on components and their interconnectivity on a region by region basis.

The Examiner cited FIG. 1, reference numbers 8 and 3 as disclosing the claim requirement of a manager, coupled to the one or more scanners, that responds to the collected

information to determine a topology of a portion of the SAN spanned by the regions. (Office Action, pgs. 2-3) Applicants traverse.

Reference 8 comprises a system admin 8 and reference number 3 comprises the SVM 3. As discussed, the SVM 3 handles the device polling to determine the configuration of hosts and devices in the SAN. Nahum mentions that the system admin 8 is coupled by a network link 6 to the user network. (Nahum, pg. 5, para. 0067).

Nowhere does the cited Nahum anywhere disclose that a manager is coupled to the scanners for the different regions and responds to the collected information to determine a portion of the SAN topology that spans the regions. Further, nowhere does the cited Nahum anywhere disclose that the cited system admin 8 is coupled to the SVM 3 and determines a topology of a portion of the SAN as claimed. Instead, the cited system admin 8 is described as a separate component. The Examiner has not cited any part of Nahum that discloses that the cited system admin 8 is coupled to the SVM 3 and determines a topology from the collected information as claimed.

Accordingly, claim 1 is patentable over the cited art because the cited Nahum does not disclose all the claim requirements.

Claims 2-8 are patentable over the cited art because they depend from claim 1, which is patentable over the cited art for the reasons discussed above. Further, the following dependent claims provide additional grounds of patentability over the cited art.

Claim 2 depends from claim 1 and further recites that the manager identifies one or more storage device ports common to two or more regions. The Examiner cited block 32 of Nahum as disclosing the additional requirements of claim 2. (Office Action, pg. 3) Applicants traverse.

Nahum has a block 32 in FIG. 3, which is described in the specification as a 64 bit PCI. (Nahum, pg. 6, para. 0076). This cited element 32 nowhere discloses the claim requirement that the manager identifies one or more storage device ports common to two or more regions.

Accordingly, the additional requirements of claim 2 provide additional grounds of patentability over the cited Nahum.

Claim 3 depends from claim 1 and further requires that the manager identifies regions having one or more common storage devices as a virtual SAN. The Examiner again cited block 32 of Nahum as disclosing the additional requirements of claim 3. (Office Action, pg. 3) Applicants traverse.

Nahum has a block 32 in FIG. 3, which is described in the specification as a 64 bit PCI. (Nahum, pg. 6, para. 0076). The cited block 32 nowhere discloses the claim requirement that the manager identifies regions having one or more common storage devices as a virtual SAN.

Accordingly, the additional requirements of claim 3 provide additional grounds of patentability over the cited Nahum.

Claim 6 depends from claim 4 and further requires the manager executes on a manager digital data processor that is coupled to the host digital data processors by via a second network. The Examiner cited blocks 60-61 of Nahum as disclosing the additional requirements of these claims. Applicants traverse.

The cited block 60 comprises the SVM driver 60 which interacts with the file system driver of the host to which it is associated. (Nahum, pg. 8, paras 0103-0104) The SVM driver operates a configuration polling mechanism that detects changes and enters the changes in the configuration table maintained by the SVM 3. (Nahum, pgs. 5-6, para. 0071; pg. 11, para. 0133)

Cited element 61 comprises a volume driver 61 coupled to a disk driver 62 and configuration model. (Nahum, p. 8, para 103)

Nowhere does the cited Nahum anywhere disclose that the manager is coupled to the host digital processors via a second network that is different form the first network on which the hosts and storage devices are coupled. Nowhere does the cited Nahum anywhere disclose the use of different networks, one for communication between hosts and storage devices and another for communication between the hosts and the manager as claimed.

Accordingly, the additional requirements of claim 6 provide additional grounds of patentability over the cited Nahum.

Independent claim 9 includes many of the requirements of claim 1, and additionally specifies that the manager comprises a digital processor and that the scanners are in communication coupling with the hosts and the manager. Accordingly, claim 9 is patentable over the cited Nahum for the reasons discussed with respect to claim 1.

Claims 10-20 are patentable over the cited art because they depend from claim 9, which is patentable over the cited art for the reasons discussed above. Moreover, claims 12 and 16 provide additional grounds of patentability over the cited art for the reasons discussed with respect to claims 4 and 6 because claims 12 ans 16 include the requirements of claims 4 and 6.

Applicants amended claim 21 to require that the components for each region are identified via a first network and the information regarding topology for the regions is collated via a second network.

Applicants submit that the amended claim 21 is patentable over the cited art because the cited Nahum does not disclose the use of first and second networks as claimed.

Claims 22 and 23 are patentable over the cited art because they depend from claim 21, which is patentable over the cited art for the reasons discussed above.

Added claims 24, 25, and 26 depend from claims 1, 9, and 21 and further require maintaining scan histories from each scanner providing information on components and their interconnectivity and determining changes in the topology of the components and their interconnectivity by comparing a received information from one scanner and one scan history.

The added requirements of these claims are disclosed on page 91 of the Application.

Applicants submit that these added claims are patentable over the cited art because the claims from which they depend are patentable over the cited art and because the additional requirements of these claims in combination with the base claims provide further grounds of patentability over the cited art.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-26 are patentable over the art of record. Applicants submit herewith the fees for the added claims and one month extension of time. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

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The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

Dated: September 27, 2004

By: _____

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